

Abstract of the Disclosure

An optical module includes an under cladding, a first core, a second core, and an over cladding. The under cladding has a flat shape as a whole. The first core has a quadrangular cross section and is placed on the under cladding. The second core is placed on a terminal end portion of the first core. The over cladding is placed in a region including the terminal end portion of the first core and the second core placed on the terminal end portion of the first core. The under cladding and the first core placed thereon constitute a first optical waveguide. The under cladding, the terminal end portion of the first core placed on the under cladding, the second core placed thereon, and the over cladding placed on and around the second core constitute a mode field size conversion portion. The under cladding, the second core placed on the under cladding, and the over cladding placed on and around the second core constitute a second optical waveguide. The first core is made of silicon. The first and second cores differ in cross-sectional shape. A manufacturing method for the optical module is also disclosed.